Asthma in Washington State

In 2004, the Washington State Department of Health, along with the Data and Surveillance Committee of the Washington Asthma Initiative researched, gathered and analyzed the available asthma and asthma-related data in Washington State. The results of this work were compiled into The Burden of Asthma in Washington State. The Burden Report utilized multiple Washington data sources to describe the overall impact of asthma, populations at risk, the current status of health asthma care, and the environment's impact on asthma.

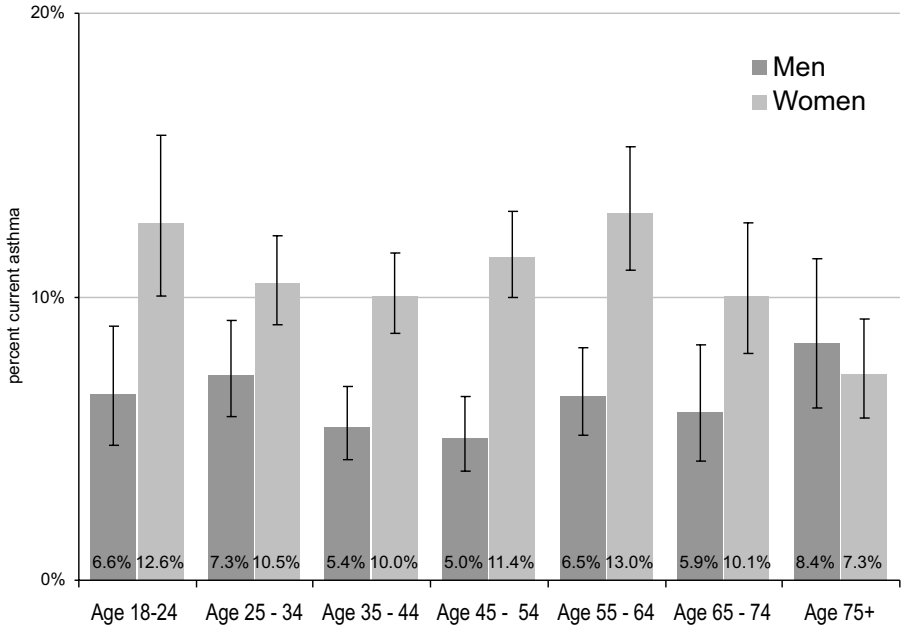
The Burden Report served as the foundation for the Washington State Asthma Plan and much of the data from the report is utilized throughout the state plan. The following section of the plan provides a synopsis of the Burden data. Except where noted, all data reflected here has been taken from the Burden Report.[1]

Washington's Asthma Rates One of Highest in US

In Washington State, an estimated 400,000 Washington adults and 120,000 youth currently have asthma. The CDC has identified Washington's asthma prevalence as among the highest in the nation, and the proportion of the state population with asthma is steadily increasing.

About 1 in 10 women and 1 in 14 men currently have asthma. Between 7% and 10% of middle/high school-aged children have asthma, and 1 in 10 households with children of any age have a child with asthma.

Figure 1: Prevalence of Current Asthma by Age and Gender, Among Washington Adults



Source: 2001-2003 combined Washington State Behavioral Risk Factor Surveillance System (BRFSS)

In Washington State, Asthma is an Important Health Issue

Every year over 5,000 people are hospitalized and about 100 people die as a direct result of asthma in Washington of which more than half the asthma hospitalizations were paid for by Medicare or Medicaid. In total, asthma costs more than $400 million every year in medical expenditures and lost productivity for the state (Figure 2).

1 Dilley, J., Pizacani, B., Macdonald, S., & Bardin, J. (2005). *The Burden of Asthma in Washington State*. Olympia, WA: Washington State Department of Health

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Figure 2: Estimated annual economic costs of asthma, Washington State and US

Annual Costs	US 2002	WA 2002
Direct Medical Expenditures		
Hospital care		
Hosp. Inpt. Care	$2,592,000,000	$68,000,000
ED care	$725,700,000	$19,000,000
Hosp outpt. Care	$960,000,000	$25,200,000
Physician services		
Physician inpatient care	$125,900,000	$3,300,000
Physician office visits	$843,300,000	$22,100,000
Prescriptions	$3,901,900,000	$102,300,000
All direct expenditures	$9,148,800,000	$239,900,000
Indirect costs		
School days lost	$1,321,500,000	$34,700,000
Loss of work/Outside Employment		
Men	$495,300,000	$13,000,000
Women	$1,346,400,000	$35,300,000
Housekeeping	$1,004,500,000	$26,300,000
Mortality	$2,164,700,000	$56,800,000
All indirect costs	$6,332,300,000	$166,100,000
Total Costs		
Direct and Indirect Costs	$15,481,200,000	$406,000,000

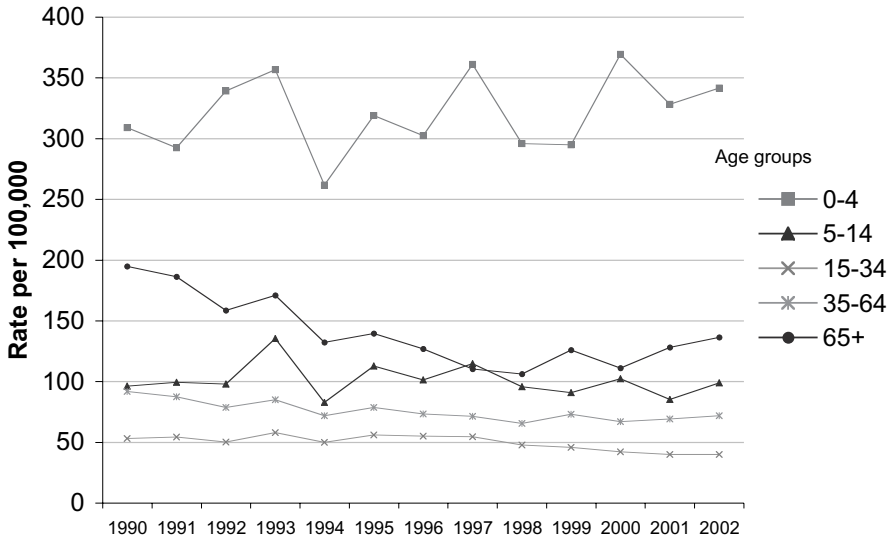
Estimates are synthetic based on published economic literature. Estimated rounded to nearest $100,000.

From1995-2002, more than a thousand claims totaling $12 million were paid by state worker compensation funds for work-related asthma

Asthma Can Reduce a Person's Quality of Life

Uncontrolled, untreated or under-treated asthma may reduce a person's quality of life through limiting their daily activities due to asthma symptoms (e.g., coughing, wheezing, shortness of breath, chest tightness). In Washington, over 75% of the adults and youth with asthma reported they had asthma symptoms during the past month, and half of adults and one-third of youth reported having trouble sleeping because of their symptoms. Each year, about 48,000 adults make at least one emergency department visit. Additionally, adults with asthma make about 100,000 urgent care visits for worsening asthma symptoms. Asthma has also been associated with depression and suicidal thoughts among young people.

Figure 3: Trends for Washington State Asthma Hospitalizations by Age Group



Source: Washington State Comprehensive Hospital Abstract Reporting System (CHARS). Asthma as principal diagnoses.

Youth with asthma miss school because of their condition, and those with more severe asthma symptoms are less likely to have high academic achievement than youth with few asthma symptoms or those without asthma.

Some are Affected More by Asthma

Although asthma affects Americans of all ages, races, and ethnic groups; low-income individuals and communities of color experience disproportionately higher mortality rates, hospital admissions, and emergency department visits due to asthma.

In Washington, children under the age of five and those living in urban, as opposed to rural, areas are the most likely to be hospitalized with asthma. People over the age of 65 are more likely to die from asthma than younger people with asthma. Likewise, Native Americans and African Americans are more likely than non-Hispanic whites to die from the disease.

Some Development of Asthma Cannot Be Controlled

Among young children, boys are more likely than girls to have asthma. By middle school age, asthma prevalence in boys begins to drop and asthma in girls increases, a trend that continues into adulthood. It is hypothesized that this phenomenon is related to boys having smaller airways until adolescence, and increases in estrogen beginning with adolescence impacts girls.

Many people who develop asthma also have allergies, particularly those whose asthma begins in childhood. Additionally, family history of asthma increases the likelihood of developing the disease.

Some Behaviors Can Increase Likelihood of Developing Asthma

In recent studies, asthma has been found to be more likely in persons who have smoked cigarettes or who are obese. Studies have also found that youth with asthma are more likely to smoke and that younger youth (8th graders) with asthma are more likely to use inhaled intoxicants or marijuana than those without asthma. There are also other behaviors such as breastfeeding that may protect against asthma and may reduce the incidence of lower respiratory illness.[2]

2 Oddy WH. (2004). A Review of the Effects of Breastfeeding on Respiratory Infections, Atopy, and Childhood Asthma. *J Asthma*. Sep;41(6):605-21

The Environment Can Cause Asthma or Make Asthma Worse

Environmental exposures play an important role in asthma control. The main factor responsible for causing asthma attacks (exacerbations) and persistent symptoms are exposure to triggers such as allergens, irritants and viral respiratory infections. A substantial number of people with asthma do not realize that they have "triggers" in their homes that make their asthma worse. Dust in carpeting, pet dander, cockroaches, wood smoke, secondhand tobacco smoke, damp environments and mold make asthma worse.

Asthma, especially among children, is caused or worsened by secondhand smoke exposure. One in ten youth lives in a home where smoking is allowed and almost one in ten non-smoking adults with asthma is exposed to smoking at home. Nearly 600 new cases of asthma are caused by exposure to secondhand smoke each year.

Although Washington's air quality is generally good and has improved substantially over time, there are areas of the state where air pollution is of concern, and higher asthma hospitalization rates in urban areas may be related to air pollution exposure. Motor vehicle exhaust (cars, buses, trucks, ships and trains), smoke from woodstoves or outdoor burning, and industrial emissions all affect the quality of outdoor air.

Between 5% and 25% of adult-onset asthma can be attributed to workplace exposures. Occupational exposures vary greatly between occupations and may also include exposure to secondhand tobacco smoke. Smoking is still allowed in some worksites, including worksites where the public can visit and also be exposed, such as restaurants, bars, and casinos.

People with Asthma Need Access to Quality Health Care

People with asthma are more likely than people without asthma to report they had unmet health care needs – times when they wanted to see a doctor but couldn't due to a lack of money. Only about half of adults and youth with asthma reported seeing a health care provider in the past year for a planned preventive asthma visit. Only one-third of youth with asthma reported ever having a written asthma management plan to help them control their asthma with medications and or avoidance of triggers.

Flu and pneumonia vaccines are a recommended component of health care for asthma patients but also for older adults. However, only seven out of every ten adults 65 years of age or older with asthma reported receiving a vaccine. Despite the strong correlation between smoking and asthma, only one in ten smokers with asthma reported receiving advice to quit from a doctor during the past year, another recommended component of health care for asthma patients.